

Self-Service Application Deployment

Within Cisco IT, the Cloud and Software IT (CSIT) team develops and supports rating, billing, and subscription applications for the Cisco® WebEx service. As described in this [case study](#), the team developed a self-service model with Cisco IT continuous delivery (CD) platform to automate build and deploy processes for applications, replacing previously manual processes. With the automation provided by the self-service model with CD platform, the CSIT application teams now release code into testing and production without any help from IT operations staff.

This CD platform comprises several third-party software packages for application development, testing, management, and automated release inside a secure Docker container and Cisco IT's private-cloud Platform as a Service (PaaS) environment. This PaaS environment is built with OpenShift and Kernel Virtual Machine (KVM) virtualization on a Cisco Unified Computing System (Cisco UCS®) and Cisco Nexus® foundation. To select the right tools and virtual infrastructure environment, the team opens the Cisco IT eStore services catalog (which is based on Cisco Prime Service Catalog) and selects the needed cloud infrastructure and development tools. Cisco Process Orchestrator builds the secure cloud platform environment for the team to begin development in under 15 minutes.

As of mid-2016, nearly 215 developers use the CD platform in their daily work to compile the source code, generate the binary package, submit it for quality assurance (QA) testing, and deploy it to the Cisco IT production environment. The CD platform supports many different types of development languages and tools including Java, C, and web content.

The self-service model for automated application deployment has produced significant benefits:

Reduced costs. Our application development costs have declined by 70 percent. This calculation is based on lower use of vendor resources and the employee hours we save across tasks for application delivery, support, and operations.

Faster application capabilities delivery. During a release cutover window, production deployment can be completed five times faster than the time required for manual processes.

Faster development. Our development cycle is 10 times faster than the time to manually complete the build and deployment processes for an application release.

Unlimited deployments. Manual processes could have a maximum of 32 timeslots for build and deployment activity each day. Automated deployment processes remove this limit.

Accurate production deployment. "In the past two years, we have achieved 100 percent accurate production deployment for applications," says Peng Zhang, Senior Software IT Engineer of the Cloud and Software DevOps team, Cisco IT.



For More Information

[Cisco IT Case Study: Self-Service Build and Deploy](#)